

## Staff Paper Series

Staff Paper P75-3

January 1975

Minnesota's Agricultural Situation and Some  
Trends That Will Affect Its Future

Philip M. Raup

Department of Agricultural and Applied Economics

University of Minnesota  
Institute of Agriculture  
St. Paul, Minnesota 55108

STAFF PAPER P75-3

JANUARY 1975

Minnesota's Agricultural Situation and Some  
Trends That Will Affect Its Future

Philip M. Raup

Staff Papers are published without formal review within the  
Department of Agricultural and Applied Economics

Minnesota's Agricultural Situation and Some Trends  
That Will Affect Its Future\*

by  
Philip M. Raup  
Department of Agricultural and Applied Economics  
University of Minnesota

Although events of the past three years are too close in time to permit us a perspective, historians in the future will almost surely regard the early 1970's as a major turning point in our economic perceptions, and particularly those that affect natural resources. Oil and energy problems dominate our current attention but it seems probable that a longer range perspective will give growing emphasis to questions of increased agricultural output and world food supplies. As a leading agriculture state, the impact of these trends on Minnesota's future will be heavy and, at the moment, highly uncertain. We are even handicapped in describing the current Minnesota agricultural economy, since our most recent agricultural census data are from 1969. While this seminar is under way we will begin the collection of data for the 1974 census of agriculture but it will be several years before any of these data will be available. We must make do with what we have.

The data that are available suggest one major reversal of a trend of 35 years duration: Minnesota in 1974 was one of 16 states for which the U.S. Department of Agriculture reported no decline in the number of farms. A steady decline in Minnesota farm numbers had taken place since the mid-1930's, from 203,000 in 1935 to an estimated 118,000 in 1973. The estimated number of Minnesota farms has now remained stable at 118,000 for the past three years. While we cannot yet predict the durability of this change in trend, it remains a highly significant fact that the decline in the number of farms has stabilized, if only for the moment.

---

\* Submitted to a seminar on "Minnesota's Horizons", sponsored by the Minnesota State Legislature, the Minnesota State Planning Agency, and the Commission on Minnesota's Future, St. Paul, January 14-16, 1975. I am indebted to my colleague, W.B. Sundquist, for helpful comments on an earlier draft of this statement.

An even more significant trend in its economic consequences has been the steady increase over several decades in the proportion of farm operators working off farm. As a result, a major fraction of the farms of the state must now be classified as part-time farms, even though they are highly productive in an agricultural sense. For the United States as a whole, the majority of the farm population in 1972 earned more than 50% of total farm family income by work off the farm. This percentage dropped to about 42% in 1973 as a result of higher prices for farm products, but even in 1974 only slightly over half of farm family income came from the sale of farm products.

The significance for agricultural policy is profound. A rapidly growing segment of our farm population has alternative sources of income. They are less likely to respond to price and market stimuli in the manner revealed by our analysis of past agricultural price and production statistics. Many of them are more likely to be concerned about fringe benefits associated with their off-farm employment than with traditional agricultural price and income policies. We not only have a new ball game but we have a new set of players, whose response to traditional market stimuli is still untested.

Coincident with the long-term decline in numbers of farms there has been a sharp increase in average farm size. If we drop out the smallest farms, it is probable that the current average for Minnesota is approximately 300 acres, with averages over twice that figure in some counties in the northwestern part of the state. This introduces a new problem, when coupled with the dramatic rise in land values of recent years. Until well into the 1970's it was possible for the average farm family to raise enough capital from conventional credit sources to finance the purchase of a farm of average size at then current prices of land. This situation has altered dramatically in the past three years. For the state as a whole, the estimated value per acre of Minnesota farmland increased 7% from 1971 to 1972, 20% from mid-1972 to mid-1973, and 42% from July 1973 through June 1974. The composite effect is that the average value of Minnesota farmland has increased over 70% in the past three years. In the better farming areas of the southern and western part of the state, farmland sales at over \$1000.00 an acre have been frequent in 1974. Scattered sales of a quarter section of land at a quarter of a million dollars are reported. Isolated sales of a section of land for a million dollars have taken place. The consequences for the capitalization of agriculture are staggering, and we have not yet seen their full

effects. If we include a modest inventory of livestock and machinery, the average farm in southern and southwestern Minnesota today represents an investment exceeding a quarter of a million dollars. With average ability and luck, it is out of the question for a beginning farm family to accumulate a sufficient down payment to buy into an agricultural enterprise on this scale, even if we assume the most generous credit terms currently available.

One consequence is that the stage is set for an hereditary agriculture. It has been a standing joke in the rural community that the best way to acquire a farm is to inherit one or marry one. It is now a bitter irony that this becomes almost the only way for an ambitious young couple to get started in farming.

We can see the consequences of this trend already apparent in the statistics on the increased use of the corporation form of organization by farm families. Minnesota in 1973 had 585 corporate farms, as registered with the Secretary of State under the terms of the recently enacted corporate farm legislation. It is not possible to identify these farms precisely in terms of economic size or activity, but it is possible to determine the number of corporate farms in which all corporate officers and members of boards of directors have the same family name. By this test, 50% of the total number of incorporated farms in the state are in the hands of boards of directors and officers with the same surname. If we add to these the number of those corporate farms in the hands of boards of directors and officers in which only two different family names appear in the entire list of individuals reported, then 72% of the corporate farms in Minnesota are family farms in terms of ownership and control, if not in terms of size.

Although there are some incorporated farms in all agricultural areas of the state, they are found with greatest frequency in three regions. One is the intensive poultry producing area that includes Kandiyohi County, Meeker County and adjacent areas in the central part of the state. Virtually all of the poultry production in the state is by corporate farms. A second area of geographic concentration is in the south-central portion of the state where land values are highest and where problems of transferring farms from generation to generation raise the most acute financial questions. The third area is in the northwestern counties and particularly in the sugar beet and potato growing regions of the Red River Valley. Here topography favors large-scale equipment in the cash grain areas and the capital intensity of sugar beet and potato

growing makes a corporate form of organization attractive. An additional form of corporate involvement in agriculture concerns canning and processing firms that operate primarily with leased land. These are corporately managed enterprises but frequently do not involve corporate ownership of any significant amount of land.

For the state as a whole in 1974, corporate farm land was 1.8 percent of the total area of land in farms. In Clay and Dodge counties it was over 5 percent; in Martin county it was 7 percent.

We thus have several quite different sources of motivation for the recent modest growth of corporate farming in Minnesota. On the one hand, the majority of the state's corporate farms are family farms that have been incorporated primarily to ease the transfer from generation to generation. The primary goal has been to preserve family capital rather than to provide a vehicle for encouraging investment by outsiders. We have found, for example, that in the overwhelming majority of cases banks lending to corporate farms have required the borrowers to sign personal notes supporting any loans to the corporation. It seems safe to conclude that the majority of farm corporations in Minnesota have not been formed to attract outside capital.

In sharp contrast, a small number of the corporate farms in the state have been organized primarily under the stimulus of tax and accounting rules that reward corporate forms of organization in agriculture. These are often the largest and most capital intensive corporate farms, and many of them represent tax shelters rather than production organizations. Their number is small, but the acreage they control is disproportionately large. For example, only 25% of the corporate farms in the state in 1974 held over 1,000 acres land but they accounted for 66% of the total area of land under corporate farm control.

We can expect a modest increase in the number of family farms that are incorporated, primarily to facilitate estate management and inheritance processes. Whether or not any substantial expansion in larger-than-family sized corporate farms takes place is largely a function of tax and credit policy and of the extent to which vertical integration develops in livestock production, particularly in hogs.

Although the growth of corporation farming has been significant, a more important trend has been the rapid move toward specialization in Minnesota agriculture. As of 1954, cattle were reported on 84% of all Minnesota farms,

milk cows were present on 74% of the farms, hogs on 59% and 73% of the farms kept poultry. In 1974 approximately 40% of Minnesota farms have no cattle of any kind, 68% no milk cows, 69% no hogs, and over 90% of the farms have no commercial poultry. We have an agricultural structure in which many grain producing farms keep no livestock, and in which livestock farms produce a steadily declining fraction of their feed supplies, and are heavily dependent on purchased feeds.

This trend toward high levels of specialization has great significance for the capacity of Minnesota agriculture to withstand economic and climatic shock. In a year of early frost, soft corn in the past could be fed to livestock and most of the farms producing corn had livestock that could be used to harvest the immature crop. Today, an early freeze finds many farms at a disadvantage in using corn that has not matured to a degree sufficient to permit storage and resale. Relatively low grain prices of the past two decades encouraged a form of livestock production that concentrated heavily on purchased feeds, particularly grains and oil meal. We have a livestock economy that is not well suited to the shifts in relative prices that have occurred in the past two years, which make the feeding of grain a high cost method of livestock production. In this sense, Minnesota agriculture has suffered a loss of resiliency as a result of recent economic trends.

This shift in the economic structure of our livestock economy has added significance in terms of demands upon natural resources, particularly water resources and the disposal of waste materials. Twenty years ago the livestock of the state were more or less evenly divided over the lands of the principal agricultural regions. Their demands upon water supplies were decentralized among thousands of small farm water systems, and their manure was available in thousands of small farm feedlots so that it was economically feasible to transport and spread it on adjacent farm fields.

The growing concentration in livestock production has two major consequences. On the one hand, demands upon water supplies are now highly concentrated and could prove critical in a drought period. The concentration of poultry production in the central portion of the state creates heavy and insistent demands upon water supplies that would be given top priority in any period of drought. It was not true in the past that chickens and turkeys were competing directly with human beings for water supply. It will be true in the next period of water shortage.

A second consequence of concentration of livestock production on fewer and larger farms is that the value of manure as a fertilizer has been seriously reduced. We have no statewide statistics to indicate the magnitude of this loss. We do know that the proportion of all farms having no cattle of any kind increased from 16% in 1954 to 39% in 1974. On large beef, hog, and dairy farms it is uneconomic to spread the manure on fields, due to the high cost of transportation and handling. At a moment in our history when chemical fertilizers have become a critical variable, we have seriously reduced our capacity to substitute animal manures. The geographic concentration of livestock production also creates pollution problems that were largely nonexistent in an agricultural structure characterized by a large number of family-sized, multiple product farms.

There is a great deal of misunderstanding about the nature of the capital investments that have contributed to high levels of specialization in agriculture. Over the past decade the prospects of capital gains in livestock and more recently in land have attracted large quantities of capital into agriculture for nonproductive reasons. These nonproductive attractions to outside capital are complex, but are basically a result of the fact that we tax capital gains at lower rates than we tax earned income, and this differential increases for wealthy tax payers. We also have a series of accounting rules that encourage non-farm investors to seek tax shelters in agriculture. One consequence is that a distorted pattern of capital investment is appearing in American agriculture. Capital has been attracted into livestock breeding and feeding activities for tax-shelter reasons. The acute financial problems of beef feeders and dairy farmers today are due in part to the fact that capital investments in these sectors have been influenced by tax policy, credit policy, and accounting rules that have very little relation to questions of supply and demand for agricultural products.

One result is that we have an increasingly unstable source of supply of capital to major sections of agriculture. Capital that is attracted into agriculture by the promise of quick capital gains, or the creation of tax shelters, is vulnerable to changes in the business cycle. It can leave as quickly as it came in. In the livestock sector in particular we not only have a distorted pattern of recent capital investment in agriculture, but the supply of capital is also unreliable in periods of business recession.

Another consequence of concentration and specialization in agriculture is the emergence of an unusual problem in landlord-tenant relationships. The



historical image of relations between landlords and tenants in agriculture has presumed the existence of a well-financed and relatively powerful landlord, bargaining with a weak and defenseless tenant. This situation is currently being reversed. Many farmers find it difficult to continue their farm operations as they grow older, are increasingly unable to raise the necessary capital for modernization, or find themselves at a disadvantage in trying to market their products. As a result, many of the largest farms in the state are composed of a relatively small fraction of owned land and a larger area of leased land, often from several small landowners. The emerging pattern is one of small, relatively defenseless landlords, and large and increasingly powerful tenants, or vertically integrated contracting supply and processing firms. We have a relatively well developed body of law that seeks to protect tenants in their negotiations with landlords, but we have not contemplated the problem in which the weak bargaining partner was the landowner. The consequences of this reversal are intimately related with questions of agricultural labor legislation, protection for farm operators who become in effect share croppers on their own land, and questions of the application of principles of collective bargaining to agriculture marketing transactions.

Increases in farm size and land prices have created one problem that calls for immediate attention. Until about five years ago it was possible for a farm family to transfer the average Minnesota farm to the younger generation without severe penalties as a result of inheritance, gift, or capital gains taxes. The situation today is dramatically different. The outmoded rate structure and exemptions provided in estate, inheritance, and gift taxes will make it impossible for farm families to pass on existing farms in the better farming areas of the state without being forced to liquidate some of the capital in order to pay the tax costs of transfer. This situation alone will destroy our existing structure of owner operated farms if it is allowed to continue. This offers an opportunity for constructive legislative action, but it also opens the door to a real danger that any increase in exemptions for inheritance purposes will favor larger farms and richer families. We have a long history in the United States of seeking to help family type farms only to find that we have actually increased their difficulty by giving unintended benefits to large-scale firms and non-farm capital. It will be unforgiveable if we repeat this mistake in the 1970's.

The solution to problems created by income tax policy, credit policy, accounting rules, or estate and inheritance tax policy must come ultimately at the national level. But it will be a mistake for the state to wait for action by the U.S. Congress. We still have a federal system of government. Land law is state law. Corporations are chartered by the state, not the federal government. If a state legislature waits for federal action, it invites the destruction of our federal system.

And it need not wait. The United States has a long history of adopting pioneering legislation at a state level, which then becomes a model for other states and ultimately for the federal Congress. This history includes the graduated income tax, social security legislation, labor legislation, welfare policy, food and drug control, and more recently, environmental protection measures. There is a rich precedent for a state legislature to draw upon in taking steps to correct capital gains tax policies, accounting rules, and inheritance tax policy that are currently distorting our agricultural structure.

The growing specialization in agriculture has made farmers increasingly dependent on agribusiness sectors that furnish them with production requirements, and market and process their products. In the traditional statistical classification, agriculture in the past has been grouped with mining and fishing, as one of the extractive industries. This is an increasingly misleading classification. Agriculture today is a value-added industry, heavily dependent on purchased supplies and inputs from outside agriculture and even more dependent on marketing outlets. The good health of agriculture is inextricably related to the good health of the rest of the economy. And the need for cooperation among farmers and their organizations has never been greater. One area in which this need is most acute is in the field of agricultural cooperatives. Now more than ever, agriculture needs imaginative leadership in the development of a strong and viable cooperative component in the agribusiness sector. Minnesota has historically provided this leadership, and its legislature has historically been a strong source of support. This too is an area in which continuous legislative vigilance is necessary.

In still another public policy sector there will be an increasing opportunity to take steps that can promote the continuing development of Minnesota's agriculture through investments in research, teaching and extension. As in all sectors of our current economic life, inflation has reduced the

effectiveness of fixed commitments, whether they are pensions for the elderly or research budgets for agriculture. We are living at the present time on the momentum generated by generations of successful investment in agricultural education and research. This momentum will not be exhausted quickly, and it will carry us forward for a few years on the basis of present levels of investment. But the signs are distressingly clear that this base of investment in human capital represented by research, new knowledge, and the delivery system to disseminate it widely is being seriously undermined. At a moment in our history when both domestic and world food needs call for an expansion in investment in agricultural education and research we are witnessing its rapid decline. Since the regular meeting of this legislature in 1973 the relative purchasing power of public funds devoted to those purposes has been cut by at least one-fourth and in some sectors by over one-third. No one can give you an exact estimate of the long-run cost of a reduced effort in research and development in the agricultural sector in Minnesota. No slide rule is needed to conclude that the cost will be great. Minnesota is rightfully proud of its reputation in the fields of agricultural education, research and extension. The challenge we face today is the challenge to return to some basic truths in the ordering of our priorities. It is still true that public investment in research and extension is one of the most effective ways to improve the distribution of benefits from technological progress. There has been no repeal of the basic truth that without increased investment in education today there can be no better tomorrow. This is unquestionably the most important policy area open for action to the state legislature.